UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,799	10/20/2000	Yuda Yehuda Luz	CE08159R	8689

22917 7590 10/30/2003

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

EXAMINER	
GRAVINI, STEPHEN MICHAEL	
ART UNIT	**PAPER NUMBER**
3622	

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/693,799	Applicant(s) LUZ ET AL.
	Examiner Stephen M Gravini	Art Unit 3622

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *20 October 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Requirements for Information

37 CFR 1.105 states: (a) (1)In the course of examining or treating a matter in a pending or abandoned application filed under 35 U.S.C. 111 or 371 (including a reissue application), in a patent, or in a reexamination proceeding, the examiner or other Office employee may require the submission, from individuals identified under §1.56(c), or any assignee, of such information as may be reasonably necessary to properly examine or treat the matter, for example:

(i) Commercial databases : The existence of any particularly relevant commercial database known to any of the inventors that could be searched for a particular aspect of the invention.

(ii) Search : Whether a search of the prior art was made, and if so, what was searched.

(iii) Related information : A copy of any non-patent literature, published application, or patent (U.S. or foreign), by any of the inventors, that relates to the claimed invention.

(iv) Information used to draft application : A copy of any non-patent literature, published application, or patent (U.S. or foreign) that was used to draft the application.

(v) Information used in invention process : A copy of any non-patent literature, published application, or patent (U.S. or foreign) that was used in the invention process, such as by designing around or providing a solution to accomplish an invention result.

(vi) Improvements : Where the claimed invention is an improvement, identification of what is being improved.

(vii) In Use : Identification of any use of the claimed invention known to any of the inventors at the time the application was filed notwithstanding the date of the use.

(2) Where an assignee has asserted its right to prosecute pursuant to § 3.71(a) of this chapter, matters such as paragraphs (a)(1)(I), (iii), and (vii) of this section may also be applied to such assignee.

(3) Any reply that states that the information required to be submitted is unknown and/or is not readily available to the party or parties from which it was requested will be accepted as a complete reply.

(b) The requirement for information of paragraph (a)(1) of this section may be included in an Office action, or sent separately.

(c) A reply, or a failure to reply, to a requirement for information under this section will be governed by §§ 1.135 and 1.136.

The Office is requiring submission of information reasonably necessary to properly examine and treat the claimed subject matter under Rule 105. Of particular interest is

information used in drafting the present operation including information related to the field of endeavor or business practices used by applicants' professional business ventures, to show the information used in the invention process, and identification of any use of the claimed invention known to the inventor at the time the application was filed notwithstanding the date of the use. Since the application is filed as a large entity status, along with the fact that the assignee has other pending applications and/or patented inventions closely related to the claimed invention and no information disclosure statement has been filed without relating to those other more relevant pending applications and patented inventions, it appears that it would be appropriate to require the applicants to provide information necessary to ensure a quality examination may be performed by the Office.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed equation is considered non-enabling because it is not discussed in the specification and each term recited in the equation is not defined.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed equation is considered indefinite because the recited terms are not defined within each claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States;
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Long et al. (US 5,710,990). Claim 7 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Antonio et al. (US 6,603,745). Claim 8 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Luz (US 5,764,104).

Claim R jections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long in view of Jasper (US 4,710,934). Long clearly anticipates the claimed invention, as discussed above, except for the claimed feature of a digital lowpass filter being an infinite impulse response digital lowpass filter. Jasper discloses the obvious variation of a digital lowpass filter being an infinite impulse response digital lowpass filter at column 8 lines 17-39. It would have been obvious to one skilled in the art to combine the teachings of Long with the teachings of Jasper to obviate the claimed feature. One skilled in the art would be motivated to consider Long in view of Jasper for the purpose of receiving a wider range of impulse response signals for lowpass filtering. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Long in view of Love et al.

(US 5,422,909). Long clearly anticipates the claimed invention, as discussed above, except for the claimed feature of Nyquist rate frequency attenuation. Love discloses the obvious variation of Nyquist rate frequency attenuation at column 5 lines 7-55. It would have been obvious to one skilled in the art to combine the teachings of Long with the teachings of Love to obviate the claimed feature. One skilled in the art would be motivated to consider Long in view of Love for the purpose of greater low pass filter frequency attenuation. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Long in view of Gilhousen et al. (US 5,103,459). Long clearly anticipates the claimed invention, as discussed above, except for the claimed feature of selectable amplifier gain for constant average power dynamic range. Gilhousen discloses the obvious variation of selectable amplifier gain for constant average power dynamic range at column 25 lines 4-60. It would have been obvious to one skilled in the art to combine the teachings of Long with the teachings of Gilhousen to obviate the claimed feature. One skilled in the art would be motivated to consider Long in view of Gilhousen for the purpose of wider dynamic range of average power for analog to digital signal conversion. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luz in view of Jasper (US 4,710,934). Luz clearly anticipates the claimed invention, as discussed above, except for the claimed feature of a digital lowpass filter being an infinite impulse response digital lowpass filter. Jasper discloses the obvious variation of a digital lowpass filter being an infinite impulse response digital lowpass filter at column 8 lines 17-39. It would have been obvious to one skilled in the art to combine the teachings of Luz with the teachings of Jasper to obviate the claimed

feature. One skilled in the art would be motivated to consider Luz in view of Jasper for the purpose of receiving a wider range of impulse response signals for lowpass filtering. Claims 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luz in view of Love (US 5,422,909). Luz clearly anticipates the claimed invention, as discussed above, except for the claimed feature of Nyquist rate frequency attenuation. Love discloses the obvious variation of Nyquist rate frequency attenuation at column 5 lines 7-55. It would have been obvious to one skilled in the art to combine the teachings of Luz with the teachings of Love to obviate the claimed feature. One skilled in the art would be motivated to consider Luz in view of Love for the purpose of greater low pass filter frequency attenuation. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luz in view of Gilhousen (US 5,103,459). Luz clearly anticipates the claimed invention, as discussed above, except for the claimed feature of selectable amplifier gain for constant average power dynamic range. Gilhousen discloses the obvious variation of selectable amplifier gain for constant average power dynamic range at column 25 lines 4-60. It would have been obvious to one skilled in the art to combine the teachings of Long with the teachings of Gilhousen to obviate the claimed feature. One skilled in the art would be motivated to consider Long in view of Gilhousen for the purpose of wider dynamic range of average power for analog to digital signal conversion. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luz in view of White et al. (US 5,459,432). Luz clearly anticipates the claimed invention, as discussed above, except for the claimed feature of decimating one or more digital sample series prior to any one of low pass filtering and calculating

average power. White discloses the obvious variation of decimating one or more digital sample series prior to any one of low pass filtering and calculating average power at column 9 lines 18-66. It would have been obvious to one skilled in the art to combine the teachings of Luz with the teachings of White to obviate the claimed feature. One skilled in the art would be motivated to consider Luz in view of White for the purpose of greater digital sample decimation thereby creating a clearer signal prior to any one of low pass filtering or average power calculating.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 7 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 9, 11, and 13 respectively, of U.S. Patent No. 6,321,073 because the patented automatic gain control apparatus and method with analog to digital conversion and sample calculating is an obvious variation to the present application claims including average power sampling, low pass filtering with signal decimation, and gain selection based on average power. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present application contains obvious variant recitations, which are obvious variations of the patented invention features since both comparisons perform the same function, in the same way with the same result. Furthermore, claims 2, 4, 9, and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 9, 11, and 13 respectively, of U.S. Patent No. 6,321,073 in view of Jasper. US 6,321,073 obviates the claimed invention, as discussed above, except for the claimed feature of a digital lowpass filter being an infinite impulse response digital lowpass filter. Jasper discloses the obvious variation of a digital lowpass filter being an infinite impulse response digital lowpass filter at column 8 lines 17-39. It would have been obvious to one skilled in the art to combine the teachings of US 6,321,073 with the teachings of Jasper to obviate the claimed feature.

One skilled in the art would be motivated to consider US 6,321,073 in view of Jasper for the purpose of receiving a wider range of impulse response signals for lowpass filtering. Claim 5, 12, 14, and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 9, 11, and 13 respectively, of U.S. Patent No. 6,321,073 in view of Love. US 6,321,073 obviates the claimed invention, as discussed above, except for the claimed feature of Nyquist rate frequency attenuation. Love discloses the obvious variation of Nyquist rate frequency attenuation at column 5 lines 7-55. It would have been obvious to one skilled in the art to combine the teachings of US 6,321,073 with the teachings of Love to obviate the claimed feature. One skilled in the art would be motivated to consider US 6,321,073 in view of Love for the purpose of greater low pass filter frequency attenuation. Claim 6 and 13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 9, 11, and 13 respectively, of U.S. Patent No. 6,321,073 in view of Gilhousen. US 6,321,073 obviates the claimed invention, as discussed above, except for the claimed feature of selectable amplifier gain for constant average power dynamic range. Gilhousen discloses the obvious variation of selectable amplifier gain for constant average power dynamic range at column 25 lines 4-60. It would have been obvious to one skilled in the art to combine the teachings of US 6,321,073 with the teachings of Gilhousen to obviate the claimed feature. One skilled in the art would be motivated to consider US 6,321,073 in view of Gilhousen for the purpose of wider dynamic range of average power for analog to digital signal conversion. Claims 16 and 17 are rejected under the judicially

created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 9, 11, and 13 respectively, of U.S. Patent No. 6,321,073 in view of White. US 6,321,073 obviates the claimed invention, as discussed above, except for the claimed feature of decimating one or more digital sample series prior to any one of low pass filtering and calculating average power. White discloses the obvious variation of decimating one or more digital sample series prior to any one of low pass filtering and calculating average power at column 9 lines 18-66. It would have been obvious to one skilled in the art to combine the teachings of US 6,321,073 with the teachings of White to obviate the claimed feature. One skilled in the art would be motivated to consider US 6,321,073 in view of White for the purpose of greater digital sample decimation thereby creating a clearer signal prior to any one of low pass filtering or average power calculating.

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steve Gravini whose telephone number is (703) 308-7570 and electronic transmission / e-mail address is "steve.gravini@uspto.gov". Examiner can normally be contacted Monday through Friday from 6:00 a.m. to 3:30 p.m. **If applicants choose to send information by e-mail, please be aware that confidentiality of the electronically transmitted message cannot be assured.** Please see MPEP 502.02. Information may be sent to the Office by facsimile transmission. The Official Fax Numbers for TC-3600 are:

After-final	**(703) 872-9327**
Official	**(703) 872-9306**
Non-Official/Draft	**(703) 872-9325**

Steve Gravini

STEPHEN GRAVINI
PRIMARY EXAMINER

smg
October 28, 2003